UL 248-14

STANDARD FOR SAFETY

Low-Voltage Fuses – Part 14: Supplemental Fuses

UL Standard for Safety for Low-Voltage Fuses – Part 14: Supplemental Fuses, UL 248-14

Second Edition, Dated August 1, 2000

Summary of Topics

This revision of ANSI/UL 248-14 dated May 7, 2020 is being issued to update the title page to reflect the most recent designation as a Reaffirmed American National Standard (ANS). No technical changes have been made.

As noted in the Commitment for Amendments statement located on the back side of the title page, UL, CSA, and ANCE are committed to updating this harmonized standard jointly. However, the revision pages dated May 7, 2020 will not be jointly issued by UL, CSA, and ANCE as these revision pages only address UL ANSI approval dates.

Text that has been changed in any manner or impacted by UL's electronic publishing system is marked with a vertical line in the margin.

The requirements are substantially in accordance with Proposal(s) on this subject dated February 14, 2020.

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LOW-VOLTAGE FUSES – PART 14: SUPPLEMENTAL FUSES

August 1, 2000

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Commitment for Amendments

This standard is issued jointly by the Association of Standardization and Certification (ANCE), the Canadian Standards Association (operating as “CSA Group”), and Underwriters Laboratories Inc. (UL). Comments or proposals for revisions on any part of the standard may be submitted to ANCE, CSA Group, or UL at anytime. Revisions to this standard will be made only after processing according to the standards development procedures of ANCE, CSA Group, and UL. CSA Group and UL will issue revisions to this standard by means of a new edition or revised or additional pages bearing their date of issue. ANCE will incorporate the same revisions into a new edition of the standard bearing the same date of issue as the CSA Group and UL pages.

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This Standard is subject to review within five years from the date of publication, and suggestions for its improvement will be referred to the appropriate committee. To submit a proposal for change, please send the following information to inquiries@csagroup. org and include "Proposal for change" in the subject line: Standard designation (number); relevant clause, table, and/or figure number; wording of the proposed change; and rationale for the change.

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This ANSI/UL Standard for Safety consists of the Second Edition including revisions through May 7, 2020.

The most recent designation of ANSI/UL 248-14 as a Reaffirmed American National Standard (ANS) occurred on May 7, 2020. ANSI approval for a standard does not include the Cover Page, Transmittal Pages, Title Page (front and back), or the Preface.

Comments or proposals for revisions on any part of the Standard may be submitted to UL at any time. Proposals should be submitted via a Proposal Request in UL's On-Line Collaborative Standards Development System (CSDS) at https://csds.ul.com.

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Preface

This is the common UL, CSA, and ANCE Standard for *Low-Voltage Fuses – Part 14: Supplemental Fuses*. This is the second edition of UL 248-14, the second edition of CAN/CSA-C22.2 No. 248.14-00 (superseding the first edition, published in 1994), and the first edition of NMX-J-009/248/14-2000-ANCE.

This Standard was prepared by a Technical Harmonization Committee comprised of members from Underwriters Laboratories, CSA International, the National Association of Standardization and Certification of the Electrical Sector, the end product manufacturers, and material suppliers. The efforts and support of the members of the Technical Harmonization Committee are gratefully acknowledged.

The present Mexican Standard was developed by the TC 32 Fuses from the Comite de Normalizacion de la Asociacion de Normalizacion y Certificacion, A. C., CONANCE, with the collaboration of the fuse manufacturers and users.

This Standard was reviewed by the CSA Subcommittee on Fuses and approved by the Technical Committee on Industrial Products under the jurisdiction of the CSA Strategic Steering Committee on the Requirements for Electrical Safety.

Note: Although the intended primary application of this Standard is stated in its scope, it is important to note that it remains the responsibility of the users of the Standard to judge its suitability for their purpose.

Level of Harmonization

This trinational standard is published as an Identical Standard. An identical standard is a standard that is the same in technical content except for conflicts in Codes and Governmental Regulations. Presentation is word for word except for editorial changes.

Interpretations

The interpretation by the SDO (Standards Development Organization) of an identical standard shall be based on the literal text to determine compliance with the standard in accordance with the procedural rules of the SDO. If more than one interpretation of the literal text has been identified, a revision shall be proposed as soon as possible to each of the SDOs to more accurately reflect the intent.

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Low-Voltage Fuses – Part 14: Supplemental Fuses

1 General

NOTE –

This Part is intended to be read together with the Standard for Low-Voltage Fuses – Part 1: General Requirements, hereafter referred to as Part 1. The numbering of the Clauses in this Part corresponds to like numbered Clauses in Part 1. The requirements of Part 1 apply unless modified by this Part. For Clauses not shown below, refer to the Standard for Low-Voltage Fuses – Part 1: General Requirements, NMX-J-009/248/14-2000-ANCE ♦ CAN/CSA C22.2 No. 248.1 ♦ UL 248-1.

1.1 Scope

This Part applies to supplemental fuses rated 60 A or less intended only for supplementary overcurrent protection where branch circuit or equivalent applications are not involved. DC ratings are optional.

4 Classification

Supplemental fuses are constructed so they cannot be installed in fuseholders intended for fuses covered in the other Parts 2, 3, 4, 6, 7, 8, 9, 10, 11, 12, 13 and 15 of the Low-Voltage Fuse Standard series. Time-delay ratings are optional.

Some supplemental fuses may physically fit into Part 5 – Class G fuseholders. However, supplemental fuses are intended to protect equipment only and are not permitted to be used instead of Class G fuses in branch circuits.

5 Characteristics

5.2 Voltage rating

The DC voltage rating may be different from the AC rating.

5.3 Current rating

60 A or less

5.5 Interrupting rating

For AC – 10,000 A unless otherwise specified below.

The DC interrupting rating may be different from the AC rating.

Microfuse: 50 A minimum interrupting rating

A fuse rated 250 V ac may have a dual interrupting rating. This rating shall be 10,000 A at 125 V ac and a lower interrupting rating at 250 V ac as specified in Table A.

Table A
Interrupting ratings for dual interrupting rated fuses at 250 V ac

Current rating I_n, A	Minimum interrupting rating, A
0 – 1	35
1.1 – 3.5	100
3.6 – 10	200
10.1 – 15	750
15.1 – 30	1500

Fuses rated less than 125 V ac may have an interrupting rating less than 10,000 A.

Fuses with interrupting ratings greater than 10,000 A shall be rated 50,000 A or 100,000 A, AC.

5.6 Peak let-through current and clearing I^2t characteristics

Not specified.

6 Marking

6.1 Marking of fuses

All required markings shall appear on the smallest package.

The term "Supplemental Fuse" is the appropriate fuse classification, but it does not have to be marked. Neither a fuse nor its package shall bear a marking which states or implies that the fuse is current-limiting.

Except for microfuses, the minimum marking on the fuse shall be:

a) the manufacturer's name, trademark, or both;

b) current rating including the corresponding unit of measurement; and

c) voltage rating.

For microfuses, the smallest package shall be marked with the required information. Fuses rated above 125 V shall be marked to indicate their current rating. Fuses rated 125 V or less may be marked at the option of the manufacturer. Except for current rating of fuses above 125 V, color coding of microfuses is an acceptable type of marking. When used, the applicable color code scheme shall be marked on the smallest package.

The designation "D" may be used as a substitute for "Time Delay" (for qualifying fuses only).

7 Construction

7.1 Fuse dimensions

The dimensions of a supplemental fuse are not specified, except envelope dimensions are given for the microfuse in Part 1, Clause 2.2.7.2.